

Work Order ID 62902

Wednesday, October 13, 2010 8:27:09 AM



Page 1

Item ID: D212-664-207TRN

Accept



Setup Start



Revision ID:

Item Name: Crosstube Turning Detail

Stop



Start Date: 10/13/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 10/22/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan:



Date: 10/10/13

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D212-664-247	Rev B

100



MORI SEIKI CNC LATHE LARGE

Mori Seiki

Mori Seiki CNC Lathe Large

Memo

0.00

H.A 10/11/15

1 0

110



QC1- Inspect dimensions to dimension sheet

QC

Quality Control

0.00

H.A 10/11/15

1 0

120



MORI SEIKI CNC LATHE LARGE

Mori Seiki

Mori Seiki CNC Lathe Large

Memo

0.00

H.A 10/11/15

1 0

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Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130



QC1- Inspect dimensions to dimension sheet

0.00

A-A 10/11/15

1 0

QC

Quality Control

140



QC8- Inspect parts - second check

0.00

S101117

(7)

QC

Quality Control

150



Crosstubes Chemical Conversion

0.00

B 10/11/17

HandFXtube

Hand Finishing Crosstubes

0.00

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Wednesday, October 13, 2010 8:27:09 AM

Item ID: D212-664-207TRN

Accept



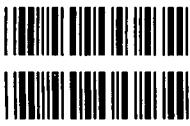
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Cust Item ID:

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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160



QC3- Inspect Part Finish

0.00

QC

Memo

0.00

Quality Control

170



Packaging

0.00

Packaging

Memo

0.00

Packaging

Identify and stock in kanban rack
Location: stiles

180



QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

Quality Control

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Picklist Print

Page 1

Wednesday, October 13, 2010 8:27:13 AM

Work Order ID: 62902



Parent Item: D212-664-207TRN



Parent Item Name: Crosstube Turning Detail

Start Date: 10/13/2010

Required Date: 10/22/2010

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A New Issue 08-03-06 DD verified by:ec
IPP Rev B 08.04.02 Removed polish EC verified DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6008-132 		Manufactured	No			110	Each	13.0000	1	1			

Crosstube extrusion

Location	Loc Qty	Loc Code
LG	13	
57660	3	
58414	10	

ank 10/11/12

W/O:		WORK ORDER CHANGES							
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DART AEROSPACE LTD	Work Order:	C2902
Description: Crosstube Assembly (205/212 Low Aft)	Part Number:	D212-664-247
Inspection Dwg: D212-664-247 Rev: B		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	0.438	+/-0.010	0.434	✓	/18-120	MIC
	2.680	+0.005/-0.000	2.684	✓	MIC	CNC-04
	2.680	+0.005/-0.000	2.681	✓	"	"
	2.687	+0.005/-0.000	2.692	✓	"	"
	2.802	+0.005/-0.000	2.806	✓	"	"
	2.906	+0.005/-0.000	2.908	✓	"	"
	3.009	+0.005/-0.000	3.010	✓	MIC	CNC-05
	3.112	+0.005/-0.000	3.116	✓	"	"
	3.250	+0.005/-0.000	3.250	✓	"	"
SIDE B	0.438	+/-0.010	0.436	✓	MIC	/18-120
	2.680	+0.005/-0.000	2.681	✓	MIC	CNC-04
	2.680	+0.005/-0.000	2.685	✓	"	"
	2.687	+0.005/-0.000	2.692	✓	"	"
	2.802	+0.005/-0.000	2.807	✓	"	"
	2.906	+0.005/-0.000	2.911	✓	"	"
	3.009	+0.005/-0.000	3.014	✓	MIC	CNC-05
	3.112	+0.005/-0.000	3.116	✓	"	"
	3.250	+0.005/-0.000	3.252	✓	"	"
	128.268	+/-0.030	128.270	✓	Tape	GA-12

Measured by:	A, A	Audited by:	S	Preliminary Approval:	N/A
Date:	10/11/15	Date:	10/11/15	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	08.11.07	New Issue (P/O D212-664-207)	KJ/EC	
B	10.04.01	Dwg Rev updated	KJ	
C	10.08.03	Dimension 128.268 was 128.27	KJ	M

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NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

B

Item	Qty -247	Qty -247B	Part Number	Description
1	X		D212-664-247	CROSSTUBE ASSEMBLY (205/212 LOW AFT)
2		X	D212-664-247B	CROSSTUBE ASSEMBLY (214 LOW AFT)
3	1	1	D6008-132	CROSSTUBE
4	2	2	D2940-1	SUPPORT
5	4	4	D3595-063-530	RUBBER CUSHION
6	2	2	D3660-1	CUFF
7	4	4	MS21920-28	CLAMP (OR MS21920-30)
8	44	44	CR3212-4-06	RIVET (OR M78853-4-06)
9	A/R	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)
10	A/R	A/R	SIKAFLEX-241/-291	SEALANT (OR PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT)

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6008-132
FINISHED LENGTH = 128.258±0.020 (BEFORE BENDING/TRIMMING)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D212-664-XXX" AND BATCH NUMBER ON INSIDE OF CUDD USING VIBRATING STYLUS.
- 7) WEIGHT: D212-664-247 = 36.6 lbs (PER IIN-D212-664)
D212-664-247B = 36.6 lbs (PER IIN-D212-664)
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) WHEN MACHINING TAPER, RUN CUTTER OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D., EXCEPT UP TO 10% IS ALLOWED IN AREA NOTED.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2940-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE OF D2940-1 THAT WILL BE IN CONTACT WITH THE CROSSTUBE PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-28 CLAMPS (OR -30) WITH D3595-063-530 RUBBER CUSHIONS TO SECURE THE D2940-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE OF CROSSTUBE SUPPORT.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.
- 16) INSTALL D3660-1 CUDD AFTER CHEMICAL CONVERSION COAT BUT BEFORE PAINT, WITH A LAYER OF SIKAFLEX-241/-291 OR PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT BETWEEN CUDD AND CROSSTUBE. SEAL EDGE OF CUDD TO ENSURE NO GAPS.
- 17) TOUCH-UP HOLES WITH CHEMICAL CONVERSION COAT.

SHOP COPY

RECD

ENG'D

UNCONTRACTED

SUBMIT

WITH

WORD

NO. 62902

PHO-10-13

RELEASED
2009-10-79

B	REVISE GENERAL NOTES/PART LIST; UPDATE TO CURRENT STANDARDS; ADD -247B (ZN C4-2, D5-2)	RF	09.09.30
A	NEW ISSUE	CP	07.07.07
REV.	DESCRIPTION		
DESIGN	9	DART AEROSPACE LTD	
DRAWN	RF	HAWKSLEY, ONTARIO, CANADA	
CHECKED	9	DRAWING NO.	REV. B
MFG. APPR.	9	D212-664-247	SHEET 1 OF 4
APPROVED	9	TITLE	SCALE
DE APPR.	9	CROSSTUBE (205/212 LOW AFT)	NTS
DATE	09.09.30	COPYRIGHT © 2007 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1

1

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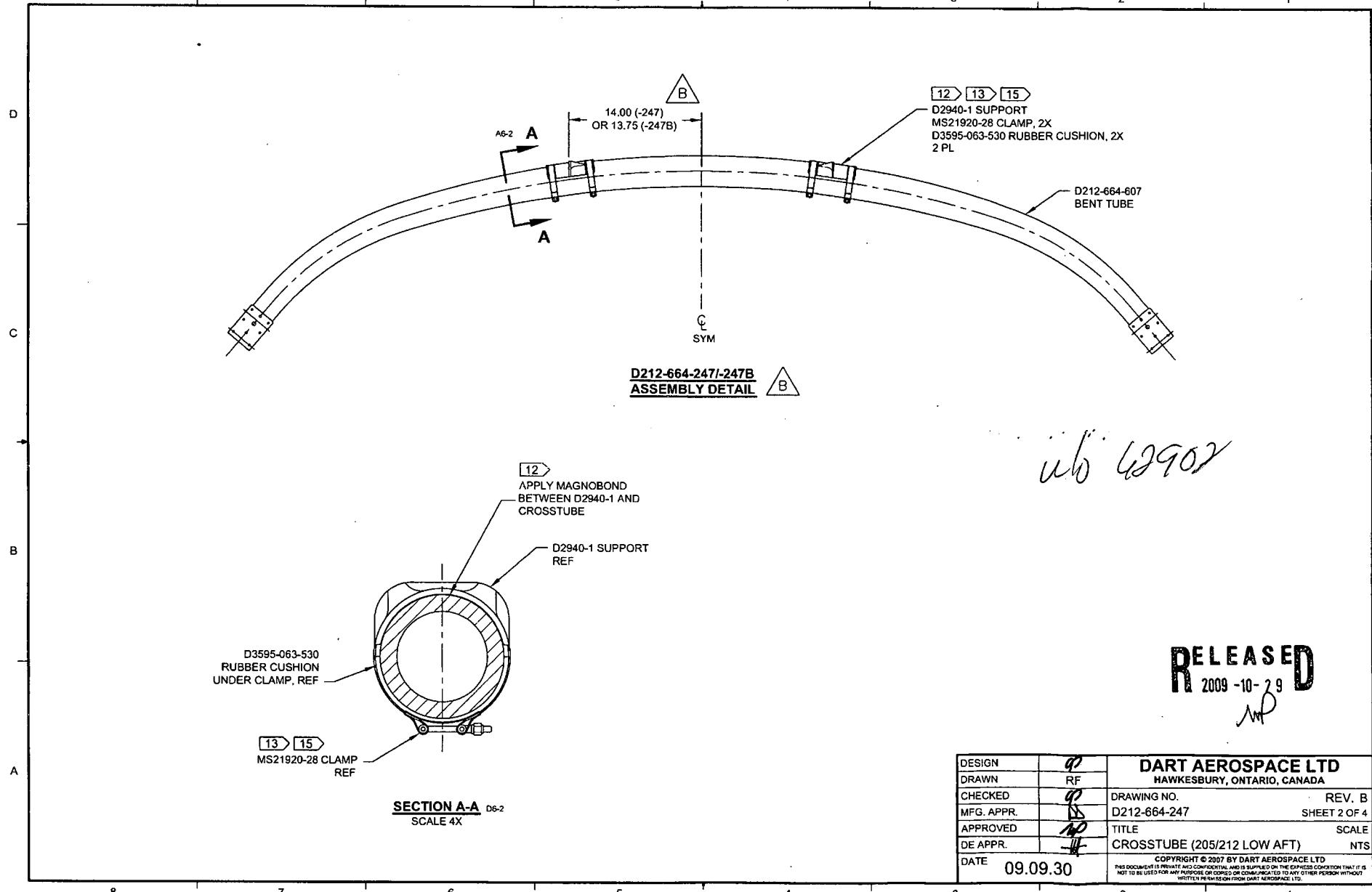
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8 7 6 5 4 3 2 1



RELEASER
2009-10-29
NP

DESIGN	97	DART AEROSPACE LTD
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA
CHECKED	97	DRAWING NO.
MFG. APPR.	ND	D212-664-247
APPROVED	ND	SHEET 2 OF 4
DE APPR.	ND	TITLE
		SCALE
		NTS
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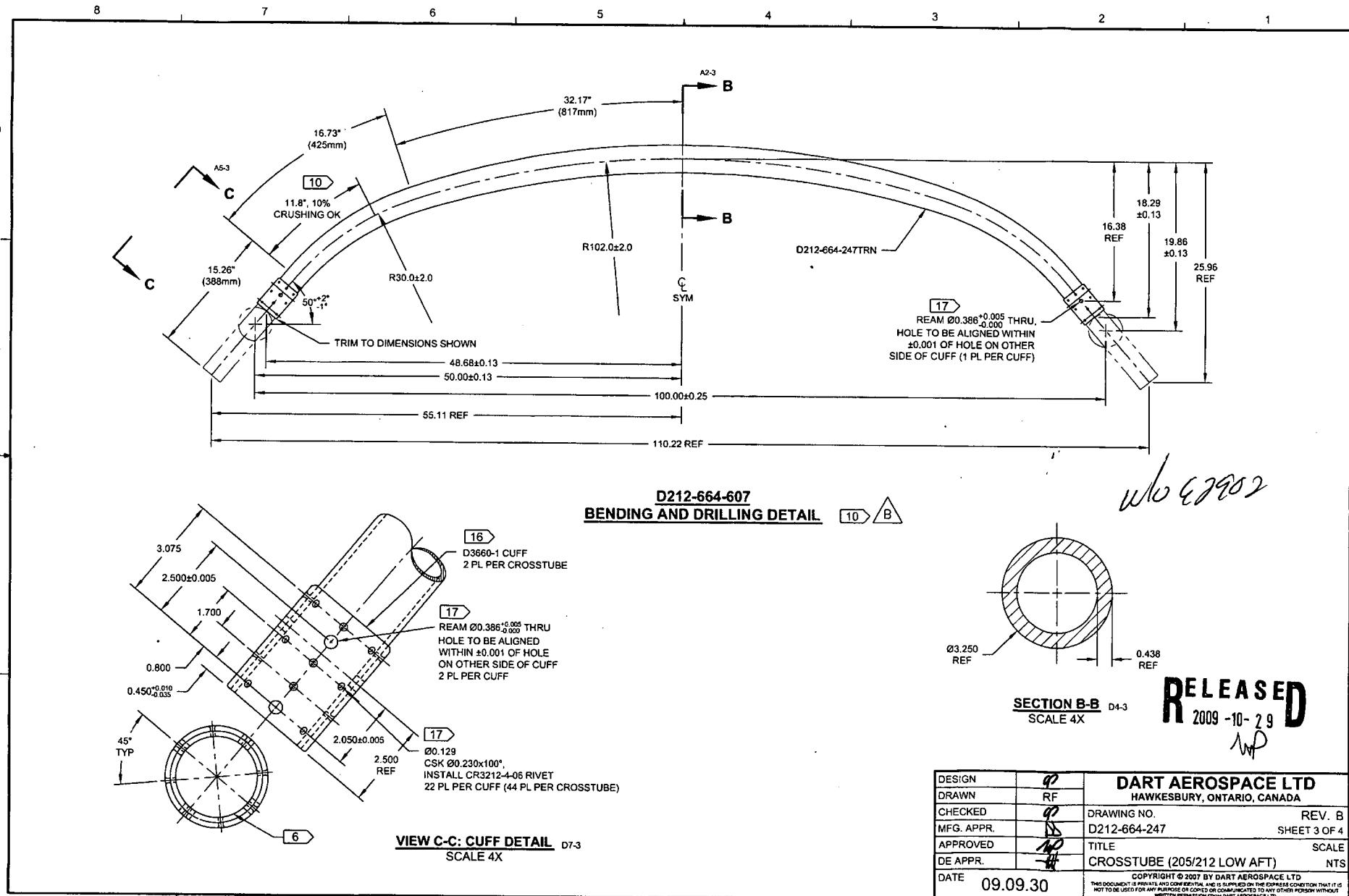
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RELEASED
2009-10-29

2009-10-29

1

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DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>90</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>DS</i>	D212-664-247	SHEET 3 OF 4
APPROVED	<i>RP</i>	TITLE	SCALE
DE APPR.	<i>#</i>	CROSSTUBE (205/212 LOW AFT)	
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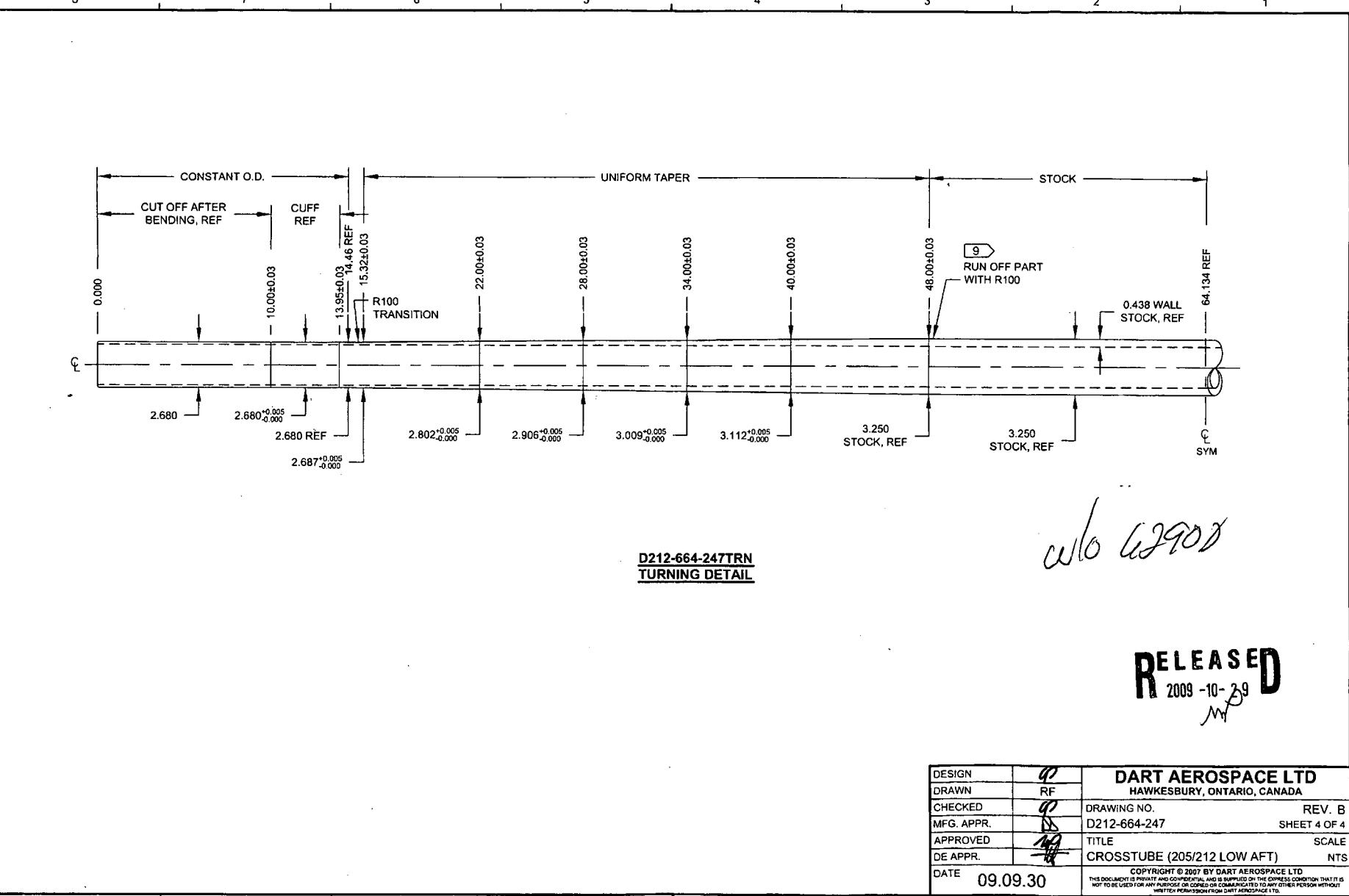
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M

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